

ABSTRACTS

This invention is related to the diagnostic method of hemolytic anemia, which allows early diagnosis of hemolytic anemia and discrimination of significant schistocytes from insignificant old schistocytes by utilizing the flow cytometric detection of damaged RBCs using anti-Hb in a hypotonic solution compared to saline solution, in the case of the presence of schistocytes in the peripheral blood, such as microangiopathic hemolytic anemia (MAHA).

This method does not require the washing or lysing steps, and get the result within 20 minutes easily. In detail, two microliter of peripheral blood isolated from a patient was stained with PE conjugated antihemoglobin (anti-Hb) antibody in 0.6% NaCl for 15 minutes at room temperature. Then, without wash, 3ml of saline were added and analyzed by flow cytometry.

Therefore, compared with the counting schistocytes on the stained blood smears the time-consuming and hard to distinguish schistocytes from indented normal red cells (RBCs), this invention provides here a new quick and accurate diagnostic method of hemolytic anemia by flow cytometry using antihemoglobin (anti-Hb) antibody which detect only newly produced damaged RBCs and discriminate significant from insignificant old schistocytosis.

Key word: red blood cell (RBC), hemolytic anemia, red blood cell (RBC) test.